

REMARKS

In paragraph 2 of the Office Action, claims 1-7 were rejected under 35 U.S.C. §102(a) or (e) as being anticipated by Willey et al. (Willey).

Reconsideration is requested.

Claim 1 has been amended to delete the words "at least" and "ester oil". This does not raise a new issue as claims 23, 24 and 26 were all directed to a single base oil formulation. The term " mm^2/s " has been corrected to read $\text{--mm}^2/\text{s--}$ in accordance with page 27, line 20 of the specification.

The present invention is directed to a grease composition comprising a base grease and an additive. The base grease comprises a base oil and a thickener where the base oil is one oil that is either a poly- α -olefin oil, a mineral oil or an ether oil. The kinematic viscosity of the oil is between 20 and $200\text{mm}^2/\text{s}$ at 40°C and the additive comprises an inorganic bismuth compound. When the grease is enclosed in a bearing, a constant velocity joint or a rolling part, an inorganic bismuth compound is supplied to a sliding surface where it forms a film coating. The inorganic bismuth compounds are capable of allowing the surface of the moving part which is under extreme pressure to resist those extreme pressures properly for an extended period of time. This prevents frictional wear and flaking on the lubricated surface.

Willey discloses a grease intended for rock bit lubrication where the grease is based on a high viscosity poly- α -olefin synthetic base fluid that is used in combination with an additional base fluid, a metal complex soap thickener and a bismuth oxide extreme pressure additive (hereafter a HVI PAO grease).

This rock bit lubricant exhibits an ability to operate at temperatures of 300°F or higher for at least 300 hours and is compatible with elastomers, and resist thermal and oxidative

degradation. while providing high load carrying capability. This is explained at paragraph [0006] of Willey. The Willey disclosure stresses the need for a combination of base oils, with one high viscosity oil and one low viscosity oil (Willey paragraph [0007]). The base oil of the Willey HVI PAO grease is made by blending a high viscosity component with a low viscosity component, such as alkylated naphthalene as describe by Willey in paragraph [0062] and in the Examples. For these reason, the use of a single component oil in grease as pointed out in amended claim 1 is novel as compared to the Willey formulation. Willey also discloses an ester oil based grease which has been excluded from amended claim 1 by this Amendment. For these reasons, it is requested that this ground of rejection be withdrawn.

An early and favorable action is earnestly solicited.

Respectfully submitted,


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